CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/NMK/W.No.37/2020-21

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

25.08.2020

Client	: **Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
Agency	: **Sri. N M Krishnamurthy,** Contractor, Bangalore.
Name of the work	: Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.07.2020	25.08.2020	8.189	376.5	16.73
2	28.07.2020	25.08.2020	8.168	366.3	16.28
3	28.07.2020	25.08.2020	8.172	352.8	15.68

Note:

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2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
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Job No.: CQCE/BBMP/NMK/W.No.37/2020-21

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

25/08/2020

Client	: **Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
Agency	: **Sri. N M Krishnamurthy,** Contractor, Bangalore.
Name of the work	: Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.07.2020	25.08.2020	8.224	515.2	22.90
2	28.07.2020	25.08.2020	8.239	526.3	23.39
3	28.07.2020	25.08.2020	8.218	534.6	23.76

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CQC/BBMP/NMK/R No.37/2020-21

GRADATION FOR GSB (Coarse Graded Grading-V)
IS : 2720 (Part - 4)

Date :09.09.2020

Agency : Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Client : Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of work : Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(II), BBMP, Bangalore.
Date of Testing : 07.09.2020 to 09.09.2020

Oven Dry Wt (gm) : 20000

TABLE - 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.00	-	-	-	100	100
53.00	798	798	3.99	96.01	80-100
26.50	1847	2645	13.23	86.78	55-90
9.50	5569	8214	41.07	58.93	35-65
4.75	2121	10335	51.68	48.33	25-50
2.36	6587	16922	84.61	15.39	10-20
0.85	1247	18169	90.85	9.16	2-10
0.425	987	19156	95.78	4.22	0-5

TABLE—2: Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	22.00	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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Lab No: CQCE/BBMP/NMK/W.No.37/2020-21

GRADATION FOR GSB (Coarse Graded Grading-V)
IS : 2720 (Part - 4)

Date :09.09.2020

Agency : Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Client : Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of work : Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing : 07.09.2020 to 09.09.2020

Oven Dry Wt (gm) : 20000

TABLE – 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.00	-	-	-	100	100
53.00	784	784	3.92	96.08	80-100
26.50	1852	2636	13.18	86.82	55-90
9.50	5560	8196	40.98	59.02	35-65
4.75	2136	10332	51.66	48.34	25-50
2.36	6580	16912	84.56	15.44	10-20
0.85	1256	18168	90.84	9.16	2-10
0.425	986	19154	95.77	4.23	0-5

TABLE—2: Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	23.00	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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Ref No: CQCE/BBMP/NMK/W.No.37/2020-21

GRADATION FOR GSB (Coarse Graded Grading-V)
IS : 2720 (Part - 4)

Date :09.09.2020

Agency : Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Client : Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of work : Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing : 07.09.2020 to 09.09.2020

Oven Dry Wt (gm) : 20000

TABLE – 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.00	-	-	-	100	100
53.00	715	715	3.58	96.43	80-100
26.50	1985	2700	13.50	86.50	55-90
9.50	5536	8236	41.18	58.82	35-65
4.75	2165	10401	52.01	48.00	25-50
2.36	6589	16990	84.95	15.05	10-20
0.85	1252	18242	91.21	8.79	2-10
0.425	969	19211	96.06	3.94	0-5

TABLE – 2: Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	23.00	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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Ref.No: CQCE/BBMP/NMK/W.No.37/2020-21

GRADATION FOR GSB (Coarse Graded Grading-V)
IS : 2720 (Part - 4)

Date :09.09.2020

Agency : Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Client : Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of work : Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing : 07.09.2020 to 09.09.2020

Oven Dry Wt (gm) : 20000

TABLE – 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.00	-	-	-	100	100
53.00	815	815	4.08	95.93	80-100
26.50	1798	2613	13.07	86.94	55-90
9.50	5526	8139	40.70	59.31	35-65
4.75	2163	10302	51.51	48.49	25-50
2.36	6580	16882	84.41	15.59	10-20
0.85	1365	18247	91.24	8.77	2-10
0.425	978	19225	96.13	3.88	0-5

TABLE—2: Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	23.00	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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CQCE/BBMP/NMK/W No.37/2020-21

GRADATION FOR GSB (Coarse Graded Grading-V)
IS : 2720 (Part - 4)

Date :09.09.2020

Agency : **Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
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Date of Testing : 07.09.2020 to 09.09.2020

Oven Dry Wt (gm) : 20000

TABLE – 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.00	-	-	-	100	100
53.00	748	748	3.74	96.26	80-100
26.50	1865	2613	13.07	86.94	55-90
9.50	5526	8139	40.70	59.31	35-65
4.75	2168	10307	51.54	48.47	25-50
2.36	6580	16887	84.44	15.57	10-20
0.85	1263	18150	90.75	9.25	2-10
0.425	958	19108	95.54	4.46	0-5

TABLE – 2:-Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	22.50	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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IS : 2720 (Part - 4)

Date :09.09.2020

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Date of Testing : 07.09.2020 to 09.09.2020

Oven Dry Wt (gm) : 20000

TABLE – 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.00	-	-	-	100	100
53.00	710	710	3.55	96.45	80-100
26.50	1896	2606	13.03	86.97	55-90
9.50	5526	8132	40.66	59.34	35-65
4.75	2362	10494	52.47	47.53	25-50
2.36	6580	17074	85.37	14.63	10-20
0.85	1236	18310	91.55	8.45	2-10
0.425	896	19206	96.03	3.97	0-5

TABLE—2:-Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	24.00	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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GRADATION FOR GSB (Coarse Graded Grading-V)
IS : 2720 (Part - 4)

Date :09.09.2020

Agency : **Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
Client : **Sri. N M Krishnamurthy,** Contractor, Bangalore.
Name of work : Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing : 07.09.2020 to 09.09.2020

Oven Dry Wt (gm) : 20000

TABLE – 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.00	-	-	-	100	100
53.00	810	810	4.05	95.95	80-100
26.50	1869	2679	13.40	86.61	55-90
9.50	5536	8215	41.08	58.93	35-65
4.75	2165	10380	51.90	48.10	25-50
2.36	6582	16962	84.81	15.19	10-20
0.85	1236	18198	90.99	9.01	2-10
0.425	978	19176	95.88	4.12	0-5

TABLE – 2: Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	23.50	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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Job No:- CQCE/BBMP/NMK/W.No.37/2020-21

GRADATION FOR WMM
MORTH TABLE-400-11

Date : 10.09.2020

Client : **Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
Agency : **Sri. N M Krishnamurthy,** Contractor, Bangalore.
Name of Work : Comprehesive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.

Date of Testing : 10.09.2020
Material Type : Wet Mix Macadam

Oven Dry Wt (gm): 10000

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	380	380	3.8	96.2	95-100
22.4	2350	2730	27.3	72.7	60-80
11.2	2265	4995	50.0	50.1	40-60
4.75	1725	6720	67.2	32.8	25-40
2.36	1436	8156	81.6	18.4	15-30
0.600	689	8845	88.5	11.6	8-22
0.075	430	9275	92.8	7.3	0-8

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